

Abstract of the Disclosure:

Fuel cells which may be used for automotive applications are described. For rapid heating of a cell to operating temperature, the reaction area of the cell (bipolar plate) is divided, and for startup, only a partial area (1) is supplied with the reactants via separate inlet ports (3a, 5a; 3b, 5b) and outlet ports (4a, 6a; 4b, 6b). This partial area thus heats up relatively rapidly due to its reduced size, and the resulting reaction heat may be transferred to adjacent reaction areas (2) and/or used for heating. After reaching the operating temperature in these areas, the reactants may also flow over the adjacent reaction areas (2) until achieving the full operating power of the fuel cell.

(plus Figure 1)